

<b>Notice of Allowability</b>	Application No.	Applicant(s)	
	09/883,561	HOLLOWAY, GARRY I.	
	Examiner	Art Unit	
	Adam Levine	3625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTO-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to Interview dated 9 March 2007, including authorization of examiner's amendment.
2.  The allowed claim(s) is/are 1,4,6-8,11,13,14,22-28 and 30-38.
3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All
  - b)  Some\*
  - c)  None
  1.  Certified copies of the priority documents have been received.
  2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application
6.  Interview Summary (PTO-413),  
Paper No./Mail Date 20070227.
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.

  
 MATTHEW S. GART  
 PRIMARY EXAMINER  
 TECHNOLOGY CENTER 3600

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with John F. Hoffman (Reg. No. 26,280) on March 9, 2007.

The application has been amended as follows:

#### ***In the Title***

The title has been changed to read as follows:

--Computer implemented method, computer program product, and system for gem evaluation--

#### ***In the Claims***

Claims 1-3, 6-10, 13-14, 21-23, 26, 29-31, 34, 36 and 39, have been amended as follows:

Claim 1 (currently amended): A computer implemented method of providing a user with an assessment of a ~~gem stone~~, gemstone having a cut shape, the method including the steps of:

a computer receiving a plurality of at least three objective parameter values from the user relating to measured physical proportions of the ~~gem~~ stone;

gemstone, said values selected from the group comprising depth percentage, table percentage, crown angle, crown percentage, pavilion angle, pavilion percentage, culet percentage, girdle thickness, or other analogous physical proportion parameters applicable to the cut shape of the gemstone;

the computer determining attribute values for a plurality of attributes of the ~~gem~~ stone contributing to visual appeal, including one or more of the following: brilliance, fire, scintillation, and diameter spread;

wherein each said attribute value is determined by:

selecting at least three of the received objective parameter values; and using combining the selected objective parameter values in combination to determine the said attribute value on the basis of predetermined consumer preferences which that have been established taking into account the effect, upon the corresponding attribute contributing to visual appeal, of an inter- relationship amongst all of the selected objective parameter values;

wherein the step of determining includes retrieving said values of attributes contributing to visual appeal from one or more lookup tables indexed by the selected at least three objective parameter values;

—the computer establishing a rating value of the ~~gem~~ stone based upon said values of attributes contributing to visual appeal; and

— the computer providing to the user an assessment of the ~~beauty and desirability of the gem stone~~ aesthetic characteristics of the gemstone relative to said predetermined consumer preferences based upon said rating value and/or said values of attributes contributing to visual appeal.

Claim 2 (cancelled)

Claim 3 (cancelled)

Claim 6 (currently amended): Method of claim 1 wherein the ~~gemstone~~ gem stone assessment includes a description of the visual appearance of the ~~gemstone~~ gem stone based upon the determined values of attributes contributing to visual appeal and/or the established rating value.

Claim 7 (currently amended): Method according to claim 1 wherein the ~~gemstone~~ gem stone is a diamond.

Claim 8 (currently amended): Computer program product including a computer usable medium having computer readable program code embodied on said medium for providing a user with an assessment of a ~~gem stone~~ gemstone having a cut shape, said computer program product further including computer readable code within said computer usable medium for:

receiving a plurality of at least three objective parameter values from the user relating to measured physical proportions of the gem stone;

gemstone, said values selected from the group comprising depth percentage, table percentage, crown angle, crown percentage, pavilion angle, pavilion percentage, culet percentage, girdle thickness, or other analogous physical proportion parameters applicable to the cut shape of the gemstone;

determining attribute values for a plurality of attributes of the gemstone contributing to visual appeal, including one or more of the following: brilliance, fire, scintillation, and diameter spread;

wherein each said attribute value is determined by:

selecting at least three of the received objective parameter values, and using combining the selected objective parameter values in combination to determine the said attribute value on the basis of predetermined consumer preferences with that have been established taking into account the effect, upon the corresponding attribute contributing to visual appeal, of an inter-relationship amongst all of the selected objective parameter values;

wherein the computer program product includes one or more lookup tables of values of attributes contributing to visual appeal embodied on said computer usable medium, and wherein the computer program product further includes computer readable code within said computer usable medium for, in the step of determining, indexing said lookup tables using the selected at least three objective parameter values to retrieve the derived values of attributes contributing to visual appeal;

establishing a rating value of the gemstone~~gem~~ stone based upon said values of attributes contributing to visual appeal; and

providing to the user an assessment of the ~~beauty and desirability of the gem stone~~aesthetic characteristics of the gemstone relative to said predetermined consumer preferences based upon said rating value and/or said values of attributes contributing to visual appeal.

Claim 9 (cancelled):

Claim 10 (cancelled):

Claim 13 (currently amended): Computer program product of claim 8 including computer readable code within said computer usable medium for providing the user with a description of the visual appearance of the gemstone~~gem~~ stone based upon the determined values of the attributes contributing to visual appeal and/or the established rating value.

Claim 14 (currently amended): Computer program product according to claim 8 wherein the gemstone~~gem~~ stone is a diamond.

Claim 21 (cancelled):

Claim 22 (currently amended): Method of claim 21 wherein entries in the lookup tables are predetermined values computed using a computer software program for performing virtual diamond analysis.

Claim 23 (currently amended): Method of claim 21 wherein entries in the lookup tables are predetermined values obtained by analyzing actual diamonds.

Claim 26 (currently amended): Method of claim 1 wherein the ~~gemstone~~ assessment includes a numerical value corresponding with the rating value.

Claim 29 (cancelled):

Claim 30 (currently amended): Computer program product of claim 298 wherein entries in the lookup tables are predetermined values computed using a computer software program for performing virtual diamond analysis.

Claim 31 (currently amended): Computer program product of claim 298 wherein entries in the lookup tables are predetermined values obtained by analyzing actual diamonds.

Claim 34 (currently amended): A system for providing a user with an assessment of a ~~gem stone~~ having a cut shape, the system including:

input means for receiving a plurality of at least three objective parameter values from the user relating to measured physical proportions of the gem stone;

gemstone, said values selected from the group comprising depth percentage, table percentage, crown angle, crown percentage, pavilion angle, pavilion percentage, culet percentage, girdle thickness, or other analogous physical proportion parameters applicable to the cut shape of the gemstone;

means for determining values for a plurality of attributes of the gemstone gem stone contributing to visual appeal, including one or more of the following: brilliance, fire, scintillation, and diameter spread;

the determining means being configured to determine each said attribute value by:

selecting at least three of the received objective parameter values; and  
using combining the selected objective parameter values in combination to determine the said attribute value on the basis of predetermined consumer preferences which that have been established taking into account the effect, upon the corresponding attribute contributing to visual appeal, of an inter-relationship relationship amongst all of the selected objective parameter values;

wherein the determining means includes a means for retrieving said values of attributes contributing to visual appeal from one or more lookup tables indexed by the selected at least three objective parameter values;  
means for establishing a rating value of the gemstone gem stone based upon said values of attributes contributing to visual appeal; and

output means for providing to the user an assessment of the beauty and desirability of the gem stone aesthetic characteristics of the gemstone relative to said predetermined consumer preferences based upon said computed rating value and/or said values of attributes contributing to visual appeal.

Claim 36 (currently amended): System of claim 34 wherein the input means and output means include means for receiving the objective parameter values from the user and for transmitting the gemstone gem stone assessment to the user over the internet.

Claim 39 (cancelled):

#### ***Reasons for Allowance***

The following is an examiner's statement of reasons for allowance:

#### *Regarding independent claims 1, 8, and 34*

The claims are directed to a computer implemented method, a computer program product, and a system that each provide a user with an assessment of a cut gemstone. The claims recite, *inter alia*: combining the selected objective parameter values to determine the said attribute value on the basis of predetermined consumer preferences that have been established taking into account the effect, upon the corresponding attribute contributing to visual appeal, of an inter-relationship amongst all of the selected objective parameter values; wherein the step of determining includes retrieving said

values of attributes contributing to visual appeal from one or more lookup tables indexed by the selected at least three objective parameter values.

The prior art of record neither anticipates nor fairly and reasonably teaches a method, computer program product, and system for assessment of a gemstone comprising the steps of combining the selected objective parameter values to determine the said attribute value on the basis of predetermined consumer preferences that have been established taking into account the effect, upon the corresponding attribute contributing to visual appeal, of an inter-relationship amongst all of the selected objective parameter values; wherein the step of determining includes retrieving said values of attributes contributing to visual appeal from one or more lookup tables indexed by the selected at least three objective parameter values.

The closest similar prior art of record is Malnekoff (Paper # 05022005; US Patent No. 6,304,853). Malnekoff discloses an automated gemstone evaluation system that receives data regarding gemstone proportions and generates an evaluation report including a pricing estimate based on gemstone data received (see at least column 2 lines 15-30, column 4 lines 12-36). Malnekoff teaches the influence of cut proportions on gemstone pricing (see at least column 4 line 58 – column 5 line 5) but does not anticipate nor does it fairly and reasonably teach combining the selected objective parameter values to determine the said attribute value on the basis of predetermined consumer preferences that have been established taking into account the effect, upon the corresponding attribute contributing to visual appeal, of an inter-relationship amongst all of the selected objective parameter values; wherein the step of determining

includes retrieving said values of attributes contributing to visual appeal from one or more lookup tables indexed by the selected at least three objective parameter values.

Malnekoff adjusts a gemstone price negatively for individual variations away from a single parameter.

Shannon (Paper # 05022005; US Patent No. 5,966,673) teaches a system and method for computerized evaluation of gemstones. Shannon discloses grading the cut of a gemstone using ray tracing and teaches retrieving values from lookup tables containing predetermined values computed using a program for performing virtual diamond analysis. Shannon, however, does not anticipate nor does it fairly and reasonably teach combining the selected objective parameter values to determine the said attribute value on the basis of predetermined consumer preferences that have been established taking into account the effect, upon the corresponding attribute contributing to visual appeal, of an inter-relationship amongst all of the selected objective parameter values; wherein the step of determining includes retrieving said values of attributes contributing to visual appeal from one or more lookup tables indexed by the selected at least three objective parameter values.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Wueste, US Patent No. 6,745,596 (June 8, 2004): Teaches a princess cut gemstone cut with an increased number of facets to provide a combination of attributes in a way that maximizes and balances brilliance, dispersion, and scintillation.
- Wilson, GB 1 416 568 (December 3, 1975): Teaches measurement of gemstones and storage of information regarding measurements of gemstones to create an electronic registry of gemstones and objectively value cut gemstones against ideal measurements.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam Levine whose telephone number is 571.272.8122. The examiner can normally be reached on M-F, 8:30-5:00 Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Smith can be reached on 571.272.6763. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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March 13, 2007

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